

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WELTED AND COVERED SEAMS.

Specification forming part of Letters Patent No. **174,764**, dated March 14, 1876; application filed August 19, 1875.

To all whom it may concern :

Be it known that I, HELEN A. BLANCHARD, of Boston, Massachusetts, have invented an Improved Welt and Covered Seam, of which the following is a specification :

My invention relates to seams of cloth, leather, or any other suitable material, made by placing the two edges to be united, the one over the other, as shown in Figure 8 of the accompanying drawings, and then alternately stitching within and without the edge; afterward flattening out the seam so that the edges will abut, as shown by D D, Fig. 7.

In sewing leather, cloth, &c., with this seam, where it is subject to considerable chafing or rubbing, it is desirable often to furnish protection to the parts of the threads exposed on the wearing-surface. This I do in two ways, viz: by the insertion of a piping or welt; by sewing a strip over the seam.

Fig. 10 of the accompanying drawings shows the two pieces to be united, B B placed in position for sewing, with the welt or piping inserted so as to project a little beyond their edges. The sewing is then done on a machine adapted to sew zigzag, or over the edge, as, for instance, is shown in my Letters Patent No. 161,471, the needle passing alternately within and without the edges of B B, but each time through the piping A. Figs. 1 and 2 show the upper and under side of the seam thus made flattened out. The folded edge of the piping can be made to come on the inside or with the straight threads of the seam, instead of the diamond thread, by reversing its position from that shown in Fig. 10 to that shown in Fig. 9.

If it is desirable to have the welt or piping project only on one side of the seam, and the reverse smooth, it can easily be accomplished by placing the edge of the welt or piping even with the edges B B, Fig. 11, and then stitching within and without the edge. This seam, flattened out, presents the appearance of Fig. 12, also of Figs. 3 and 4, which show the upper and reverse side of the same seam, the upper thread passing through the piping or welt, the under thread passing outside of the same.

Instead of having a folded welt or piping,

I can use a single piece of leather, or any other suitable material, (see Figs. 5 and 6); also a cord can be inserted in the piping, if desirable.

As another method of protecting the exposed threads of the seam, especially when a piping would be objectionable, I cover the seam with a strip of suitable material, C, Fig. 7, sewed directly over the seam D D either by the zigzag stitch E or the ordinary plain stitch F.

The advantages of the welt or piping and of the covered seam are manifest in the protection which they afford against the wearing and chafing of the exposed parts of the seam-thread. They are particularly applicable to the seams of shoes, leather mittens, bags, and heavy woolen goods or canvas. Still, I do not limit them to such.

I do not claim the simple insertion of a piping or welt in a seam, nor the covering of a seam with a strip of suitable material sewed over the same; but in a seam made by alternately stitching within and without the edge of the material sewed, and then flattening the materials out so that the edges shall abut, as a protection to the exposed sewing-threads. Sometimes I enlarge the size of the piping, and after it has been stitched in, as before described, and the seam flattened out, I also flatten out the piping, and stitch its edges down with one or more rows of stitching, by which I obtain the same general result and effect as with the covered seam; with the advantage, however, over the seam that if the outside stitching wears the strip is so secured by the over stitching that it will not hang loose. A very good result can be obtained with a single row of plain zigzag or other fancy stitching on the center of the piping. Or, again, I can stitch the two edges of the covering-strip, one on each piece to be seamed, then overseam and flatten out, by which I have a covered seam and no stitches showing.

I claim and desire to secure by Letters Patent—

1. In combination with a seam made by stitching the superposed edges of the cloth, or other material, alternately within and